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EXAMINER

CIRIC, LJILJANA V

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3743

DATE MAILED: 07/29/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/886,534

Applicant(s)

Ku

Examiner

Ljiljana V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 28, 2003 and May 7, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, and 13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-10, 12, and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jun 20, 2001 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☒ Other: Attachment A

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DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment and arguments filed on January 28, 2003 and to the supplemental reply filed on May 7, 2003.
2. Claims 1 through 10, 12, and 13 remain in the application as amended.

Response to Arguments

3. Applicant's arguments filed on January 28, 2003 and on May 7, 2003 have been fully considered. Some of these aforementioned arguments are persuasive, others are not, while still others have been rendered moot in view of the new ground(s) of rejection presented herein, all as explained more fully below.

Upon reconsideration, applicant's arguments as presented on May 7, 2003 are deemed persuasive with regard to claim 1 as amended.

Applicant's amendments to claims 1 through 6 have obviated the previously cited rejection of these claims under 35 U.S.C. 112, second paragraph, and have rendered these claims allowable, as also noted below.

Applicant's arguments with respect to claim 10 have been considered but are moot in view of the new ground(s) of rejection as presented below.

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Applicant's arguments with respect to the previously cited rejection of claims 7 through 9 and 11 through 13 under 35 U.S.C. 102 (b) as being anticipated by *Takesita et al.* have not been found persuasive.

As a preface to the following traversal of applicant's arguments, the examiner hereby notes that the claims in a pending application should be given their *broadest* reasonable interpretation. See *In re Person*, 181 USPQ 641 (CCPA 1974).

First of all, applicant argues that *Takesita et al.* "fails to teach or disclose the claim limitation that the first and second air flows flow through the respective heat exchangers in **substantially perpendicular** directions, as presently claimed in independent claim 7. As can be seen in the figures of *Takesita*, the first and second air flows flow in *opposite* directions." The examiner respectfully disagrees. As shown in the marked-up copy of Figure 1 of *Takesita et al.* (Attachment A), the direction of the second air flow is substantially perpendicular to the direction of the first air flow at least at some points of the flows. That the first and second flows flow in opposite directions does not preclude the respective *directions* of the flows from being perpendicular to one another since the first and second flows are generally serpentine as shown.

Second of all, applicant argues that "the applied art of record does not fairly teach or suggest such a unique feature" as the pair of passages configured to allow fluid communication between the second chamber and the third chamber. Contrary to applicant's assertion as reiterated below, *Takesita et al.* indeed does disclose a pair of passages configured to allow communication between the second chamber and the third chamber, the first of these passages

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corresponding to heater core inlet passage 20 and the second of these passages corresponding to the heated air passage "HP" as shown in Figure 1 of the reference.

Applicant's arguments thus fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments thus also do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Drawings

4. Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. Receipt and entry of the amended abstract are hereby acknowledged.

Claim Objections

6. Claims 7 and 12 are objected to because of the following informalities: "to discharge the air from the third chamber" [claim 7, lines 8-9] should be replaced with "to discharge the heat exchanged air" or with "to discharge the heat exchanged air from the air conditioner" in order to

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minimize redundancy while improving consistency; and, "an" immediately preceding "outside" [claim 12, line 3] should be deleted for improved grammatical correctness. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 7 through 9, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by *Takesita et al.*

Takesita et al. discloses a vehicular air conditioner essentially as claimed, including, for example: a housing or casing 12 containing three vertically aligned chambers; a first heat exchanger 14 located in the first chamber, wherein the first chamber is configured to pass a first air flow through the first heat exchanger 14 in a first direction as shown by the first solid arrow corresponding to the air flow from air inlet opening 18a; a second heat exchanger 16 located in the second chamber, wherein the second chamber is configured to pass a second air flow through the second heat exchanger 16 in a second direction substantially perpendicular to the first direction as shown in the mark-up of Figure 1 on attachment A hereto; a third chamber configured to receive the heat exchanged air from at least one of the first and second chambers and to discharge the same from the air conditioner; a door 22, for example; a partition member having at

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least one arcuately curved surface and defining two openings as broadly interpreted as required, the partition member together with the walls of the housing or casing 12 defining the three chambers, the first opening being configured to allow fluid communication between the first chamber and the third chamber, and the second opening being configured to allow fluid communication between the first chamber and the second chamber; a pair of passages configured to allow communication between the second chamber and the third chamber, the first of these passages corresponding to heater core inlet passage 20 and the second of these passages corresponding to the heated air passage "HP" as shown in Figure 1; a mix door 22 configured to adjust the degree of opening of the first and second openings; and, a conduit connected to the second heat exchanger 16 through a hole in the wall of the casing or housing 12 defined by the second chamber as also shown in Figure 1.

The reference thus reads on the claims.

9. Alternately (for claims 7 through 9, 12, and 13), claims 7 through 10, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by *Bendell*.

Bendell [especially Figure 2] discloses a vehicular air conditioner 1 essentially as claimed, including, for example: a housing 2 containing three chambers; a first heat exchanger 14 located in the first chamber, wherein the first chamber is configured to pass a first air flow through the first heat exchanger 14 in a first direction as shown by the solid arrows corresponding thereto; a second heat exchanger 12 located in the second chamber, wherein the second chamber is configured to pass a second air flow through the second heat exchanger 12 in a second direction

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substantially perpendicular to the first direction as shown by at least some the solid arrows corresponding thereto; a third chamber configured to receive the heat exchanged air from at least one of the first and second chambers and to discharge the same from the air conditioner; a partition member corresponding to inner housing 24 having at least one arcuately curved surface and defining two openings corresponding respectively to the inlet opening 36 between the first and second chambers and to, for example, the inlet of duct passage 32 between the first and third chambers, the partition member or inner housing 24 together with the walls of the housing or casing 2 defining the three chambers, at least a pair of passages configured to allow communication between the second chamber and the third chamber, this pair of passages corresponding to any two of the passages between air-directing elements 39 disposed in the air outlet 39 from the second chamber; a mix door readable on the combination of control flap 37 as connected to flap body 35 via linkage 41, this combination mix door being thus configured to adjust the degree of opening of both of the first and second openings defined by the partition member or inner housing 24, the door having an arcuately curved surface constituting the arcuate surface of control flap 37, this arcuately curved surface of control flap 37 in turn corresponding to the curved surface of partition member or inner housing 24 at the air inlet opening 36 [see phantom representation of the door or control flap 37 in the closed position as shown in Figure 2]; and, a conduit or connection tube 13 connected to the second heat exchanger 12 through a hole in the wall of the casing or housing 2 defined by the second chamber as shown in Figure 2.

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Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The reference thus reads on the claims.

Allowable Subject Matter

10. Claims 1 through 6 are allowed.

Conclusion

11. The following additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Weindorf, Zima et al., Nonoyama et al., Uemura et al. (filed April 19, 2000), Nakamura et al. (filed July 17, 2000), Schmadl et al. (filed March 27, 2001), Klinger et al. (filed March 27, 2001), Shibata (filed December 20, 1999), Sano et al. (filed February 26, 2001), Uemura et al. (filed April 7, 1998), Behr GmbH & Co, and Nippon Denso K.K. each discloses a vehicular air conditioner with partitioned casings and/or a substantial change in air flow direction between the evaporator and the heater.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925. While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

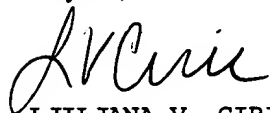
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc

July 25, 2003



LJILJANA V. CIRIC
PRIMARY EXAMINER
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